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A CASE OF CORROSIVE ULCER OF THE DUODENUM, ASSOCIATED WITH INTERSTITIAL NEPHRITIS.[1]

BY GEORGE G. TARBELL, M. D., OF BOSTON.

C. E., a man forty-four years old, came under my care at the Massachusetts General Hospital, September 11, 1875. He had been well until one year ago, when he first had dyspnœa on exertion, and general weakness, with palpitation of the heart and pain in the small of the back. These symptoms continued with varying intensity until September 4th, when slight, dry cough, nausea and occasional vomiting, loss of appetite, and increased pain in the back occurred. Swelling of the feet and legs and a fullness in the epigastrium were noticed a day or two later. The patient had been in the habit of using stimulants considerably. Micturition was frequent, and more than the usual amount of urine was passed. The bowels were constipated. There were no cerebral symptoms, though the patient slept but little. There was slight jaundice.

The area of cardiac dullness was increased. The heart-sounds were increased in intensity, but otherwise were normal. There was comparative dullness on percussion in both backs, and abundant moist, crepitant râles throughout both lungs.

A smooth, rounded tumor was found in the epigastrium, occupying about one half the space between the ensiform cartilage and the umbilicus, and extending across to the cartilage of the ribs on each side; it was dull on percussion and tender on pressure. The urine was acid; its specific gravity was 1015; it contained considerable albumen, but no casts.

The patient's principal complaint during his entire sickness was of pain and distress in the epigastrium. The tumor steadily increased in size, extending downward toward the umbilicus, and the tenderness and distress in the epigastrium were so marked that examination of the tumor caused great pain. The patient could take no food except milk. The œdema of the legs increased, extending up the thighs. The skin was tense and shining, and serum transuded. Œdema of the lungs also increased, causing dyspnœa.

[1] Reported before the Boston Society for Medical Observation, November 15, 1875.

About twenty days after his entrance to the hospital, the patient began to have frequent attacks of vomiting of a dark, grumous fluid, apparently coagulated and blackened blood mixed with mucus, and often amounting to two or three pints at once. This continued at intervals for two weeks, when, in addition to the vomiting, he had several profuse discharges from the bowels looking much like the matter vomited. Two days after this it was found, on examination of the epigastrium, that the tumor had mostly disappeared, and there was normal resonance on percussion over the stomach, although tenderness remained; an ill-defined, solid substance could be felt on deep pressure, apparently behind the stomach. After this the œdema of the legs mostly disappeared, but the urine was still albuminous, and a few days before the patient's death, eight weeks after his admission to the hospital, epithelial and granular casts were found in it.

The existence of corrosive ulcer of the duodenum did not occur to me as among the probabilities. Aside from the vomiting of coagulated blood, which is ordinarily the sign of ulceration of the stomach, the renal symptoms were the prominent ones, and the renal specimens were as markedly pathological as was the ulcer of the duodenum.

The autopsy was made by Dr. Fitz. The stomach presented the appearances of chronic catarrhal gastritis in a marked degree. The ulcer of the duodenum was about three fourths of an inch in diameter, seated in the posterior wall just below the pylorus; it extended completely through the walls of the intestine, the base being formed by the pancreas. The latter organ was not particularly corroded.

The right renal artery was of normal calibre, the left about one half as large; in addition, its volume was very considerably reduced by extensive chronic endo-arteritis. The corresponding kidney was dense, flattened, and small, hardly larger than a dried fig; the pelvis was dilated to nearly the size of the kidney, and the ureter was fully one half the normal size. There was no evidence of its constriction.

The right kidney was reduced one third in size, the surface granular, the cortex and medulla diminished in volume and very dense. The distinction between convoluted and straight tubules was lost; the Malpighian corpuscles were not to be distinguished. The microscope showed the existence of an extensive amount of interstitial affection.

Softened thrombi were found in the vesical plexus, and emboli, without infarction, in several of the smaller branches of the pulmonary arteries. Several small, round, acute abscesses were found at the posterior and peripheral portions of the lungs; their embolic origin could not be ascertained. A secondary bronchus leading to the lower lobe of the left lung was almost completely obstructed by a soft, reddish-gray, rounded tumor growing from the bronchial wall, and of the size of a large pea. Its structure was that of a medullary sarcoma, and the ab-

sence of degenerative appearances suggested its recent origin. Just beyond, in the middle of the lower lobe of the lung, a large cavity was found whose walls were dense, pigmented, and contracted, apparently older than the tumor referred to. Both lungs were likewise œdematous. The heart was hypertrophied and dilated.

The comparative infrequency of the ulcer in this location, and the still greater rarity of its mention in the standard text-books of general practice, lead me to refer to an article in the *British and Foreign Medico-Chirurgical Review* for January, 1864, which is based on a monograph by Dr. F. Trier, of Copenhagen. This work is a collation and analysis of twenty-six cases, and the author gives a clear and concise statement of the theories and the clinical facts concerning these ulcers and their origin. He coincides with the theory propounded by Virchow, who "lays great stress upon the corrosive nature of the acid contents of the stomach, but sees, in the defined form of the ulcer, the evidence that its first origin must be purely local, while the corrosive action of the acid is the most important element in its further progress."

Dr. Trier argues that in some respects the superior transverse portion of the duodenum may be considered as a transition from the stomach to the intestine, since the contents of this portion of the intestine have still an acid reaction, for the liver and pancreas have not poured in their alkaline secretions. Then, if there is an interruption to the circulation of the blood, a lesion of nutrition in any limited point, the conditions are present requisite for a progressive corrosion of the various coats of the stomach or intestine.

The theory of embolism of the arteries of the stomach or intestine as the point of departure for these ulcers is strongly corroborated by the fact that there are often two ulcers, symmetrically located and corresponding with the arterial distribution. And that the gastric fluid is the corrosive agent may be considered as proven by the fact that this peculiar form of ulceration does not ordinarily occur except where this fluid may have access before it is neutralized, namely, in the lower portion of the œsophagus, in the stomach, and in the duodenum.

While admitting the insufficiency of his own numbers as a basis for generalizations, Dr. Trier establishes three points, using also the statistics of Brinton and some other writers: —

First, that corrosive ulcer occurs in the duodenum only one tenth as often as in the stomach.

Second, that ulcer of the stomach is twice as frequent in females as in males, while ulcer of the duodenum is five times more frequent in males than in females.

Third, that it is a disease of adult life, the average age being forty-two years and six months.

A CASE OF TALIPES VARUS.

BY T. F. GALLOUPE, M. D., OF LYNN.

THE patient was born on the 25th of August, 1875. The labor had been tedious, and at its completion all parties concerned were so much fatigued that no critical examination of the child was made. The next morning my attention was called to the feet; I found each of them twisted inwards, so that when the child cried or kicked the sole looked almost directly upwards; the heels were also raised. It was a case of talipes varus of rather more than medium severity. The foot, however, could be easily brought into its normal position, and retained with slight force, there being but little shortening of the integuments and subjacent tissues. These circumstances led me to try the following simple treatment by adhesive straps.

To protect the skin from injury, a soft bandage of old linen was first applied. The foot being held in its normal position, one end of a strip of adhesive plaster (about eight inches long by half an inch wide) was applied to the dorsum of the foot at the root of the middle toe, carried inwards, around the head of the metatarsal bone of the great toe, across the sole, and around the outer border of the foot, close to the little toe; then upwards over the front of the ankle and spirally around the leg. Several short strips were applied crosswise for further security, with a roller over the whole. By this means the foot was held firmly yet comfortably in its natural position. Once in three or four days, or as often as was necessary, the whole was removed, the skin bathed, and the straps and bandages readjusted. After two weeks, I substituted for the long strip of plaster a piece of common "elastic" of the same width, about three inches in length, to each end of which a piece of plaster had been sewed, to secure it to the foot and leg. This was adjusted to the foot in the same manner as before, but it was carried up upon the outer side of the leg instead of spirally around it. This was an improvement, inasmuch as it secured constant traction and at the same time allowed a limited motion of the foot, thereby not only preventing the weakness consequent upon inaction of the muscles but also giving an opportunity for their exercise and increase of strength. This treatment was continued for six weeks, when the deformity was found to be cured.

This method is simple, efficient, and economical, and would be successful in many cases of not extreme severity. Any nurse or mother of ordinary intelligence could manage it, with occasional oversight by the surgeon.

A CASE OF URETHRAL CALCULUS.

BY J. T. BOUTELLE, M. D., OF HAMPTON, VA.

R. CARROLL, a colored man, fifty-six years old, consulted me July 1, 1875. He stated that twelve years ago he began to be troubled with difficulty in passing water, accompanied by pain in the perinæum and the abdomen. He remembered that the stream was frequently checked or "shut off" very suddenly during its passage. About ten years ago he had a complete stoppage of urine, followed by swelling of the perinæum. He had no medical attendance at that time, and a large perineal abscess formed, which opened spontaneously, giving exit to a great amount of offensive greenish matter. Through this opening his urine was voided, and, a fistula resulting, he had passed nearly all his urine through it ever since. He said that he had been a great sufferer, having to micturate often, and always with pain, the urine passing in a fine stream or drop by drop through the fistula. A very small amount also passed through the urethra. Little pieces of "gravel" were often forced through the fistula. The patient had taken morphine in large doses for a year or two to relieve the pain.

At the time of his visit he was suffering great pain in the loins and in the region of the bladder; walking or riding increased the pain, and he was growing very weak and unable to do any work. On attempting to pass a sound I found, about three inches from the meatus, a tough stricture, which admitted the passage of only a very fine bougie. The instrument was arrested after passing the stricture, and on withdrawing it I found the sides to be scratched as if by a hard substance. On examination with the finger along the urethra externally, some hard lumps could be felt just anterior to the scrotum. A probe passed through the stricture grated upon a hard body. As there was evidently a large calculus in the urethra, I advised an operation for its removal; to this the patient consented.

July 3d. Chloroform having been administered to the patient by Dr. Selden, of Hampton, I made an incision one inch in length into the urethra just anterior to the scrotum. Through this incision the first and second pieces or sections (1 and 2 in the figure) were removed without difficulty; on attempting to pass a sound through the wound into the bladder, the others were felt, and with a little trouble extracted with

1 2 3 4

dressing forceps. A large steel sound was then easily passed into the bladder, and no stone could be felt. No attempt was made at this time

to dilate the stricture. The wound was left open, and a cold wet compress wrapped around the penis. The man recovered well from the chloroform, and passed water freely through the wound.

July 4th. Patient had passed a comfortable night, and was feeling very well. Scarcely any constitutional disturbance, and no bad symptom of any kind observed. Water passed easily through the wound, and none through the fistula in the perinæum.

July 5th. Patient doing well. From this date he continued to improve, being soon able to be up and to walk out. But the wound gradually closed, and the urine began to pass again through the fistula, and an abscess formed at the wound.

I saw him again on August 1st. The abscess had opened and discharged; the wound had closed entirely, and he had considerable difficulty in passing water through the fistula. A small amount passed out of the meatus at every micturition.

August 7th. With the assistance of Dr. Selden the patient was chloroformed, and the stricture was thoroughly ruptured with a Holt's dilator. On recovering from the anæsthetic he passed his water easily through the urethra. He was ordered to remain quietly in bed, to drink flax-seed tea, and to have an opiate at night.

August 8th. I found him up and out of bed, feeling very well and joyful. There was almost no constitutional disturbance. From this date his recovery was rapid, and he was very soon able to resume his farm work.

November 8th. He is much improved in general health, and has given up the use of opiates entirely. The fistulous opening in the perinæum has entirely closed, and his urine passes in a good stream through the urethra. The wound from the operation also remains closed. He states that he has passed one or two small pieces of stone, but they were soft and crumbled easily.

The very remarkable size of the calculus, the length of time it had existed, and the rapid recovery of the patient after its removal by operation have led me to report the case. It is easy to see how the calculus was formed: a small stone arrested at the stricture blocked the exit of the urine, causing rupture of the urethra and perineal fistula, while the stone by continued deposit increased in size, and others formed behind it.

I had at first intended to remove the calculus by the operation of perineal section, hoping in that way to avoid making a fistula of the urethra, but the scene of operation was a small cabin with very poor light, the perinæum was full of cicatricial tissue, and my only assistant had to devote most of his attention to the anæsthetic. These facts decided me to make the incision as I have stated above, and it is noticeable that the wound healed completely under the simplest dressing.

The calculi are remarkable from the peculiar nature of the surfaces

by which each piece touches its neighbors. Pieces 2 and 3, and 3 and 4, articulate by ball-and-socket joints, 2 entering 3 and 3 entering 4. The end of 2 nearest to 1 has a transverse groove, which, instead of confining the point of 1, allows it to slide to one side or the other.

RECENT PROGRESS IN SURGERY.[1]

BY J. COLLINS WARREN, M. D.

The Treatment in Germany of Cleft Palate. — In a former Report[2] attention was called to a new operation for remedying this deformity, devised by Professor Simon, of Heidelberg. This operation, called staphylo-pharyngorraphy, was based upon the action of the upper constrictor muscle of the pharynx, which was shown to play so important a part in the act of articulation. Attention was first called to this muscle, in connection with operations or devices for the cure of the defect, by Suersen, a dentist of Berlin, whose obturator or hard-rubber plate has not attained that celebrity which its success in giving the voice a purity of tone should have earned for it.

The operations for cleft palate which are performed in this country and in England, although constantly undergoing slight modifications to facilitate the closure of the fissure, have in no case been based upon the action of the muscles with a view of remedying the more conspicuous portion of the deformity, the imperfection of speech. The great merit of Suersen's apparatus consists in its adaptation to the muscular apparatus concerned in excluding the passage of air from the throat into the nasal cavity, so that communication between the two cavities is much more effectually regulated than by any other method. The following account is taken from an abstract of a lecture delivered by Suersen at Hamburg in 1867.[3] He says that the separation of the cavity of the mouth from the cavity of the nose "is under normal conditions effected on the one hand by the velum palati, which strains itself (consequently by the levator and tensor palati), but on the other hand, also, by a muscle which has in connection with these operations not yet received, to my knowledge, a sufficient amount of attention. I mean the constrictor pharyngis superior. This muscle contracts itself during the utterance of every letter pronounced without a nasal sound, just as the levator palati does. The constrictor muscle contracts the cavum pharyngo-palatinum, the pharynx wall bulging out, and it is chiefly on the action of this muscle that I base the system of my artificial palates.

[1] Concluded from page 710.

[2] JOURNAL, xc. 596.

[3] The American Journal of Dental Science, vol. i., third series, No. 8.

"These palates, which in all their parts are made of hard caoutchouc, consist of a teeth-plate suitably attached to existing teeth, and at the same time covering the fissure in the hard palate (if such a fissure exists). Where the fissure commences in the velum, that plate terminates in an apophysis broad enough for filling up the defect. . . . The lower surface of the apophysis, turned towards the mouth, lies on about an equal level with the velum, *if the latter is raised by the levator palati.* But when the velum hangs loosely downward, the back part of the artificial palate is lying over it. This back part accordingly fills up the cavum pharyngo-palatinum, and in such a manner as not to impede the entrance of the air into the cavity of the nose when the constrictor pharyngis superior is inactive. Thus the patients can without any impediment breathe through the nose. But as soon as the constrictor contracts the cavum pharyngo-palatinum (this happens, as I will repeat for the sake of clearness, in the utterance of every letter with the exception of *m* and *n*), the muscle already named reclines against the vertical back-surfaces of the obturator. By this operation the air-current is prevented from entering the cavity of the nose, and is compelled to take its way through the mouth, and thus the utterance loses its nasal sound."

The apophysis alluded to is somewhat triangular in shape, taking an outline of a horizontal section of this part of the pharynx; it is nearly flat on its upper and under surfaces, yet thick enough to keep the fissure well closed while the sides of the soft palate are rising and falling during articulation. The improvement of the voice after a short use of one of these obturators is very striking. They are made with great facility, and are exceedingly durable. They are now applied at the Massachusetts General Hospital, having been introduced by Dr. Algernon Coolidge.

The inefficiency of the customary operation in restoring the voice lies in the fact that the tense velum produced by a closure of the fissure is too short a valve to close the communication between the two cavities. Professor Simon's operation recognizes this defect, and remedies it by a subsequent manœuvre, which consists in stitching the remains of the uvula to the posterior wall of the pharynx at a point where the superior constrictor "bulges out" during contraction. The remaining space is then easily closed by the constrictor muscle. The great advantage of this operation is that it can be applied to cases operated on in the usual way when the voice still retains a nasal tone.

An observation of Professor A. Graham Bell, of this city, is interesting in this connection. He finds that certain deaf mutes when taught to speak by his method retain a nasal tone. This is caused by the inability of the soft palate to lift itself up against the posterior wall of the pharynx. But if the soft palate is held up with the handle of a spoon during articulation (which he finds can easily be done with a little prac-

tice) the nasal tone disappears. It is evident that, being thus raised, it can act in conjunction with the constrictor muscle. Such cases might be benefited by wearing a plate to the roof of the mouth, with a projecting tongue which would keep the palate permanently raised. The same device might be adapted to cases already operated on without obliteration of the nasal tone, when Simon's operation was not thought advisable.

Dr. Schönborn lately read a paper before the fourth surgical congress at Berlin[1] in which he proposes to accomplish in one operation that which Professor Simon does in two. The edges of the cleft having been refreshed in the usual manner, a flap is taken from the posterior wall of the pharynx, the base downwards, the free end being turned over between the edges of the cleft and sewed to them. The operation was performed in a case where the cleft involved the hard palate. The wound united well; there was, however, a slight nasal tone remaining. Professor Langenbeck, who was present at the congress, claimed to have had many successful results from the old operation, that is, the one in use in this country, and thought it ought it to be tried first. The success of Schönborn's operation would seem to depend greatly on the height at which the flap was taken from the pharyngeal wall. Should the base be left too low, the velum would not be lifted high enough, and insufficiency, with nasal tone, would be the result. A great advantage would seem to be that it closes the cleft without putting the velum on the stretch, and thus allows the levator and tensor palati muscles to act in conjunction with the constrictor in separating the two cavities.

The Result of Resections for Gun-Shot Wounds. — Dr. Bergmann, professor of surgery in Dorpat, and during the Franco-German war surgeon in charge of two military hospitals, gives the results of his experience in resection of joints for gun-shot wounds.[2] An interesting feature of this brochure is the introduction of an extensive series of albertotype plates, which permit illustration on a scale not usually attempted.

Hannover's report, which followed the Prussian-Danish war, gave an opinion much more unfavorable in regard to resection of joints than had hitherto been accepted. The discussion of this question by German surgeons has since been quite animated, the favorable opinions of Langenbeck not being upheld by many of his countrymen. The operations performed by Dr. Bergmann were in most cases secondary, and were resorted to to relieve the severe inflammation which supervened on the injury. Nine cases of resection of the elbow-joint are given, of which two were fatal and five terminated in anchylosis. In two cases the functions of the joint were completely restored. In the second of these

[1] Wiener medizinische Wochenschrift, 1875, No. 18.

[2] Die Resulte der Gelenkresectionen im Kriege. Von E. Bergmann. Giessen. 1874.

the ends of the ulna and radius were removed, and the humerus was left intact. Flexion, extension, and pronation were complete; supination was not quite perfect. The resection of the elbow-joint seemed to have a favorable effect upon the inflammation which followed the injury; not so, however, that of the shoulder-joint, where acute suppurative periostitis was frequently noticed after the operation, abscesses pointing in different parts of the arm, which free openings at the back of the hand, made at the time of the operation, failed to prevent. Fifteen cases of resection of the shoulder-joint are reported; of these three were fatal, one was followed by amputation, and another by a general atrophy of the muscles of the arm. In the remainder the result was generally favorable. In only one case were active movements obtained in all directions. In two cases in which the preservation of the periosteum had been complete, the arm could be abducted. In one case the soft parts on the outside and back of the shoulder had been carried away; also a portion of the acromion and spine of the scapula, exposing the fissured head of the humerus and a fractured glenoid cavity. The patient nevertheless recovered a useful arm, the muscular development, as shown in the plate accompanying the case, being quite remarkable. The author quotes in connection with this case one of Langenbeck, in which all the soft parts about the shoulder-joint, except the large vessels, the nerves, and the biceps and latissimus dorsi muscles, were torn away, and yet the patient was able eventually to return to service, to ride, and to carry the sabre with the hand of the wounded arm. These two cases encourage him to attempt conservative treatment, even in cases in which the laceration of the soft parts is very extensive. One or two plates are given of grooved wounds, or gouging out of a piece of the head of the humerus without injury to the cartilage or shaft of the bone. The absence of splintering in these cases is thought to be due to the angle at which the ball strikes the bone. This is illustrated in the case of a ball perforating a pane of glass; if the direction of the ball is at a right angle to the surface there will be a clean hole, or nearly so; otherwise, there will be extensive splintering.

Resection of the ankle-joint did not come up to the author's expectations. The results were better as a rule than those of operations in civil practice for caries. The acute suppurative inflammation which had followed the injury was generally cured, but the cases often terminated in a tedious caries of the ends of the resected bones, which delayed recovery as long as conservative treatment might have done. This latter, he thinks, has proved more successful of late years, owing to the practice at present in vogue of resorting to free incisions. The resection of the joint did not hasten recovery sufficiently to prevent a result with an unfavorable position of the foot, there being in all his cases a tendency to pes equinus or varus. The author bears testimony to the

great amount of bone which is reproduced after this operation, exceeding that which is formed after operation for caries. Anchylosis took place in every case but one.

Dr. Bergmann's work is to be commended for the fullness and accuracy of his description of cases, and the frankness with which he comments upon them. There is a lack of system in preparing the material, which makes reference to individual cases or plates difficult. An important omission is the absence of a tabular statement of cases.

Transportation of Wounded Soldiers by Railway in Time of War.[1] — In March, 1873, the Russian government appointed a commission for the discussion and experimental trial of different methods for the amelioration of the condition of sick and wounded soldiers transported on railroads. The commission, after careful examination, concluded that the transportation of the sick and wounded should be carried on mainly by the use of box cars, that arrangements should be made for converting these to the purpose of transportation of the wounded at the shortest possible notice, and that appliances for the outfit of the same should be sent to points where it is anticipated that many wounded will be concentrated; as a rule, litters are to be used; but in case of extreme necessity, a deep layer of straw at the bottom of the car may be substituted. The report of this commission was shortly followed by that of Mr. Zavodovsky, of St. Petersburg, whose invention was submitted to the War Department at Washington for the purpose of criticism; this criticism has now appeared in the form of a report to the surgeon-general by Assistant-Surgeon George A. Otis.

Dr. Otis's paper contains a full and interesting description of the various devices employed for transporting the wounded by railway during our late war, as well as those which have been adopted by other countries since that time. Transportation by railway is naturally of comparatively recent date, the Italian war of 1859 being the first in which it was extensively employed. On that occasion passenger trains were used, for the most part, without alterations. In the Danish and Six Weeks' wars the Prussians used straw mattresses carried by stretcher poles and laid upon loose straw, this plan, employed during 1863–64 in the army of the Potomac, having been approved by the Prussian government.

The car designed for the Sanitary Commission by Dr. Elisha Harris was largely in use during our war. In this car the litters were suspended from upright wooden posts by stout rubber rings, which were found, however, to permit of too much motion to be comfortable. The

[1] A Report on a Plan for Transporting Wounded Soldiers by Railway in Time of War; with Descriptions of various Methods employed for this Purpose on different Occasions. By George A. Otis, Assistant Surgeon, U. S. Army. Washington: War Department, Surgeon-General's Office. 1875.

plan of utilizing the ordinary field stretchers for railway transport, keeping the patients upon them until they reach a fixed hospital, is commended by Dr. Otis. The utility of railway transport was most conspicuous in the army of the Cumberland. Dr. Barnum was one of the most experienced of the surgeons having in charge hospital trains; during his connection with the service he supervised the transportation of twenty thousand four hundred and seventy-two patients and lost but one, "who, despite the advice of his surgeons, implored that he might be taken to die in the bosom of his family." When General Sherman's army was before Atlanta, until the lines of communication were destroyed preparatory to the march to the sea, hospital cars ran regularly from the front to base hospitals, some of which were four hundred and seventy-two miles distant. The smoke-pipes of the locomotives of these trains were painted a brilliant scarlet; the exteriors of the hood and of the tender-car were of the same color, with gilt ornamentation. At night, beneath the head-light of the locomotive three red lanterns were suspended in a row. These distinguishing signals were recognized by the Confederates, and the trains were never fired upon or molested in any way. Few published statements have appeared respecting the transportation of sick and wounded in Confederate armies. They had no regular system of hospital trains.

Many interesting experiments were made at an international conference of the societies for the relief of wounded in war, at Paris in 1867, and a great variety of cars and litters and methods of swinging litters were shown. Although many were very ingenious and useful, and a number of improvements on the methods then shown were brought out at the time of the Vienna Exposition in 1873, Professor Billroth and others were inclined to discountenance almost any outfit of hospital cars that could not be promptly improvised. Mr. Zavodovsky's plan is based upon this view. The litters are hung on ropes depending from swinging poles, which it is proposed to cut in the forest.

This plan is not favorably commented upon by Dr. Otis, who thinks that the problem of utilizing the railway conveyances most likely to be available near the battle-field, namely, the box cars of supply trains, is not yet satisfactorily solved. Our passenger cars can easily be arranged by removing every other seat, and the movable backs of those that remain, to accommodate twelve to fourteen commodious litters; but these are not usually on hand. He says, "In the present state of our knowledge, it would appear that the simplest and best method for transforming freight cars to hospital use is by the system of Mr. Grund, as employed on some of the Prussian hospital trains, and almost uniformly on those of Bavaria and the Palatinate." This consisted in supporting three field stretchers in the front and three in the rear part of the freight cars, by means of transverse wooden bars resting on

semi-elliptical plate springs. It would therefore be necessary to store in each car a few such springs and spikes, to enable it to be converted for hospital use at any moment. A supply train thus fitted out would give each patient more air and space than were enjoyed on our hospital trains, but would not afford the same facilities of access to patients by the attendants.

Dr. Otis's report is carefully prepared and illustrated very fully and accurately, and is an interesting as well as valuable contribution to the subject. We trust it foreshadows a satisfactory exhibition of these appliances at Philadelphia next summer.

Catgut Ligatures. — K. Eliaschewitsch,[1] after experimenting with this ligature on animals, gives the following account of its fate. Ligatures were applied to the carotid and femoral arteries and to the horns of the uterus; sutures were taken in the skin and examined at intervals of from five to twenty-five days. As soon as the granulations of the wound come in contact with the ligature, a separation of the outside fibres of the catgut begins to take place. The ligature gradually grows thinner, while the fibrils break up into small particles and finally into detritus. The rapidity of this process depends upon the amount of water contained in the tissues, the degree of reaction caused by the ligature, and the manner in which it has been prepared. Fine carbolized sutures are thinned to the minimum in five or six days. On vessels and on the horns of the uterus, the ligature begins to break down in five days. In dogs killed a month after the application of the ligature, no trace of it was to be found.

The same number of the *Centralblatt* contains an abstract of an article by D. Murinoff, on the changes observed in this ligature. The author compared it with the simple ligature, and also with the chloralized catgut. To the naked eye, all kinds appeared swollen after two or three days, the swelling increasing markedly at the end of a week. Over the ligatures there was a fine transparent membrane, the knots appearing adherent to the surrounding tissue. Thinner ligatures were absorbed at the end of ten days; No. 3 Lister catgut was absorbed at the end of twenty to thirty days. The remains of knots of the former were found at the end of twenty-five days; of the latter, at the end of seventy days. Under the microscope the ordinary ligatures, as well as carbolized catgut ligatures were found to be splitting up into fibres at the end of a few days; later, they gradually disappeared among the granulations. The manner of preparing the ligatures does not appear to influence the rapidity of their absorption. Carbolized catgut irritates slightly, chloralized catgut less so, and simple catgut not at all.

Experiments were made in reference to the frequency of hæmorrhage following the different kinds of ligatures. The vessels were cut through

[1] Centralblatt für Chirurgie, No. 43, 1873.

and both ends were tied. Lister's carbolized catgut gave ten per cent., chloralized gut twenty-five per cent., and simple catgut eighty-seven per cent. of hæmorrhages. Out of forty-eight ligatures with catgut, in thirty-seven cases there was healing by first intention; out of thirty-four with chloralized gut, twenty-eight; and out of twenty-eight with simple catgut, there were eight cases of first intention.

CARTER ON DISEASES OF THE EYE.[1]

THE author has not attempted to write a complete and exhaustive treatise, but to present in a concise and readable form the present state of knowledge with regard to the nature and treatment of the more important of the diseases of the eye. Written somewhat in the style of a series of lectures, the book is certainly very readable; we can recall few medical books which may compare with it in this respect, but it is hardly everywhere concise.

There is much that is very good in the book, much that gives evidence of sound judgment. The chapter on the principles of ophthalmic therapeutics is especially instructive; still we cannot commend the assertion on page 252 that, when with granulations of the conjunctiva a very close vascular net-work has been developed on the cornea, little is to be hoped from any treatment except the inoculation of purulent ophthalmia, and the statement that the cornea is protected from sloughing by its vascular character, and the inoculated disease may be suffered to run its course unchecked. As it appears, this statement is not fully borne out by the author's own experience; for on page 265 he admits that in one case he has seen the inoculated disease cause sloughing of both corneæ, in spite of the fact that they were highly vascular when the inoculation was made.

The importance of atropine and of avoidance of any irritating application in iritis is very properly and strongly insisted upon; the use of an astringent for a day or two may produce irreparable mischief, but when, from the plastic character of the inflammation, from delay, or from bad treatment at first, the pupil does not yield to atropine, the indication for mercury, given so as to obtain its constitutional effect as rapidly as prudent administration admits, is considered imperative, and this independently of the syphilitic or non-syphilitic nature of the affection. In this connection the opinion of the late Dr. Anstie, that mercury exercises a special power over the parts supplied by the fifth nerve, is quoted.

Strychnia has been less efficacious in the author's hands than it has been in those of other observers; in a few cases of progressive atrophy, in which iodide of potassium, sometimes preceded by mercury, either failed or had ceased to cause improvement, the effect of strychnia was extremely good, but in the majority of cases no effect at all was apparent. The author is unable to give any symptom which may serve to distinguish the cases which it will benefit; when it produces any effect he is inclined to attribute this to the power of the

[1] *A Practical Treatise on Diseases of the Eye.* By ROBERT BRUDENELL CARTER, F. R. C. S., etc. London: Macmillan & Co. 1875.

drug to stimulate nerve nutrition after the direct operation of the primary cause which produced the atrophy has ceased.

Except in early infancy, the operation by suction is preferred for the removal of cataract in patients below the age of thirty, and Graefe's operation for senile cataract.

The book is not entirely free from errors, and there are occasionally passages in which a disposition is shown to be sarcastic over what are considered the failings or mistakes of others, not always, as it seems to us, quite fairly. The danger of indulging this inclination is illustrated in the first chapter, which treats of the anatomy and physiology of the eye. Two thirds of the twelfth page are devoted to playful sarcasm over an exploded theory based on ignorance of the arrangement of the basilar layer of the retina, and the "wholesome moral" is drawn "that an acquaintance even with the anatomy of the retina may afford security against ludicrous blundering under the disguise of knowledge." But only a few lines before this an erroneous statement has been made with regard to this very basilar layer: that "the cones are most abundant in the region of the macula lutea, where each one of them is surrounded by a single circle of rods;" the fact being that at the centre of the macula, cones only are present.

The belief expressed on page 100 that pulsation of the retinal veins on the diskis "almost always due to increased intra-ocular tension, that is to say, to a state which either is or approaches glaucoma," we are wholly unable to accede to. In our experience glaucoma is by no means common, but a venous pulse in normal eyes is exceedingly so. We were surprised also to find in the chapter on diseases of the fundus oculi that "sarcomata which originate in the choroid . . . are extremely rare," and that "the presence of a tumor within the eye necessarily occasions increased tension," while no reference is made to the most important diagnostic point in the earlier stages of sarcoma, the ophthalmoscopic appearances of the growth itself. Sarcomata of the choroid are certainly not extremely rare, — current medical literature furnishes numerous examples; nor is increased tension by any means a necessary accompaniment of the growth when it has already reached a size to be readily diagnosticated by the ophthalmoscope. It is the more to be regretted that a better account of the disease has not been given, since an early diagnosis is of the greatest importance, not indeed for the preservation of the eye, but for that of the life of the patient. As we have already said, however, there is a great deal for which we can recommend the book.

O. F. W.

FLINT'S PHYSIOLOGY.[1]

Into this volume of nine hundred and seventy-eight pages the author has, by using a large page and small type, condensed about seven eighths of all the matter contained in his large treatise of five volumes. The portions omitted are chiefly historical in character. There is little that is new except a description of the depressor nerve and a connected account of the inorganic substances

[1] *A Text-Book of Human Physiology, designed for the use of Practitioners and Students of Medicine.* By Austin Flint, Jr., M. D. New York: D. Appleton & Co. 1876.

necessary for the nutrition of the body. The chapter on the blood has, however, been to a great extent rewritten.

Though, with these exceptions, the text does not essentially differ from that of the larger work, there is a great improvement in the way in which the volume is illustrated. The number of the illustrations has been greatly increased, and their character is generally excellent. They are borrowed from such works as those of Sappey, Bernard, Hirschfeld, and Kölliker. Several reproductions of Dr. Woodward's microscopical photographs have also been introduced.

Flint's Physiology has thus been rendered far more accessible to students of that science, but the comprehensive way in which the various subjects are treated will probably make it always rather more valuable as a work of reference than as a text-book. H. P. B.

ATKINSON'S OBSTETRICAL HINTS.[1]

In 1874 Dr. Atkinson delivered the annual address before the Philadelphia County Medical Society, and this little manual is the same address rewritten and slightly enlarged. It is a most excellent statement of the main points to be observed in the treatment of a confinement case, and contains many important facts for the young accoucheur which are not to be found in any of the standard text-books. While agreeing with the writer in most of his new departures from the old methods of treatment, we must consider the statement (page 58) that a puerperal patient from the very first should be allowed to "change her position as she may desire," and to sit up in bed and to be moved to a lounge after the third or fourth day, as open to criticism.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

JAMES R. CHADWICK, M. D., SECRETARY.

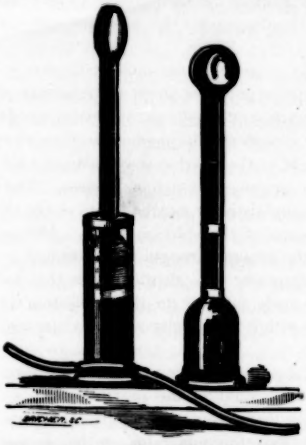
November 27, 1875. The President, Dr. H. W. Williams, in the chair.

Nascent Chloride of Ammonium in the Treatment of Bronchitis. — This paper was illustrated by cases and by the exhibition of a bottle in which the vapor was generated by adding aqua ammonia to hydrochloric acid. It is reserved for publication.

A New Sphygmoscope was shown by Dr. E. A. Pond, of Rutland, Vt., who was present as a guest. He remarked that since Marey introduced the sphygmograph many new and valuable facts in medicine had been discovered by J. Boarden, Gregory, Anstie, and others, but the precise practical value to be assigned to the variations in the pulse recognized by its aid had not as yet been determined. The obstacles to the general use of this instrument, however, were its cost and bulk. These were entirely avoided by the sphygmoscope

[1] *Hints in the Obstetric Procedure.* By William B. Atkinson, M. D. Philadelphia: Collins, Printer, 705 Jayne Street.

presented, which consisted of a glass tube, from three to six inches in length, with a diameter of three sixty-fourths of an inch; one end flared slightly, so as to be funnel-shaped. A drop of colored fluid is allowed to fall into the large end of the tube, and is shaken down to about the middle of the capillary bore, where it serves as an index, rising and falling with the pulse when the large end of the tube is pressed down upon any artery. The slightest



movement or vibration of the column of blood is indicated, and the course of any vibrating vessel may be surely traced, though imperceptible to the touch; even the capillaries of the fingers may be followed. In a case of senile gangrene, Dr. Pond had been able to trace in the foot those arterial branches which were still permeable. In concussion of the brain and in collapse after injuries, what is known as the "brain pulse" may be recognized, so that in severe railroad injuries, scalds, etc., where the reaction is slow, a complete or only partial recovery may be prognosticated. A tendency to paralysis of the heart in typhoid fever may be made evident by this instrument, and proper precautions taken. The tremulous pulse in typhoid fever, and the very irregular "jiggling" pulse in diphtheria both indicate prostration and immediate danger; whether these two characteristics were pathognomonic of the two diseases was yet to be determined.

In a case of inflammatory rheumatism, Dr. Pond had recently been able to diagnosticate valvular disease of the heart by means of the sphygmoscope, and had confirmed it subsequently by auscultation.

A handle has been adjusted to the instrument to prevent movements being imparted to the index by the unconscious variations in pressure on the part of the investigator, though with practice this may be discarded. To prevent the escape of the fluid, it has been found desirable to cover the large end of the tube with a thin rubber diaphragm, which does not interfere with the delicacy of the markings.

The perfection of the instrument is due to Dr. W. R. Pond, of Stockton, Cal., a son of the inventor. He has fitted the fine tube into a larger one, which acts as a reservoir of fluid, being closed at the bottom by the rubber diaphragm. The end of the small tube is covered with a packing, so as to act in the larger one as a piston; this serves a double purpose, regulating the height of the vibrating column and showing the motions of the pulse. An annular tube has been made which will indicate simultaneously the pressure and the vibrations.

In conclusion, Dr. Pond claimed that by a study of the pulse with this instrument much important information could be obtained about the condition of the heart, the arteries, and the veins, the action of medicines in health and in disease, the indications for stimulation or venesection in pneumonia, disease of the brain, etc. The first and second sounds of the heart may be distinctly differentiated when they are obscured by the presence of valvular disease. During the use of anæsthetics the eye of the administrator may be kept constantly informed of the state of the pulse by means of the sphygmoscope. During labor it heralds every pain and indicates the general strength of the woman.

Dr. Knight pointed out that this instrument was identical with that invented by Scott Allison, which had been made familiar to the profession in Boston by the brilliant experiments made with it in this city several years ago by Dr. J. B. Upham.

Dr. Pond stated in reply that he had not been aware that another instrument of this kind had been previously devised; that in the past few years he had made, in conjunction with his son, more than twenty different instruments. He had, morever, affixed to his pattern a recording apparatus, so that it was now both a sphygmoscope and sphygmograph.

Melano-Sarcoma of the Choroid. — A specimen was presented by Dr. B. J. Jeffries. A woman, seventy-seven years old, discovered that her right eye was blind. She applied to the Eye and Ear Infirmary for advice, when Dr. F. P. Sprague found the sight extinct, the globe externally normal, and its movements unimpaired. Under atropine, the pupil dilated to about two thirds of its normal diameter. Lateral illumination gave a dull yellowish reflex. The ophthalmoscope revealed a tumor, of a faint yellowish color, within the globe, projecting from the outer side forward, towards the ciliary region; the extreme inner portion of the field was comparatively clear. No history could be obtained of cancer in the family. Two months later the patient returned with all the symptoms of glaucoma: great pain, a dull cornea, a dilated oval pupil, a shallow anterior chamber, and increased tension of the eyeball. As the condition was clearly the glaucomatous stage of an intra-ocular growth, enucleation was at once performed. A section through the centre of the globe, after removal, at right angles, to the visual axis, divided a tumor, the size of a small filbert, springing from the choroid. The retina was separated in the shape of a funnel from the nerve to the ora serrata; the tumor had not penetrated the sclerotic, or reached the optic nerve or ciliary region. Under the microscope it was seen to be pigmented sarcoma.

Dr. Jeffries spoke of the liability of such a case being mistaken for acute glaucoma, and iridectomy performed; whereas, only enucleation would stop the pain, and give the patient a chance of life for some years.

Dr. Jeffries then exhibited a specimen of extra-ocular sarcoma with the following history: In June, 1871, a man, forty-eight years old, noticed a small tumor growing from the outer edge of the cornea of his right eye. It had increased so much by the following January that a portion was cut off by Dr. Sawyer, of Bangor, Maine. In May, 1872, the patient applied to Dr. Jeffries, who found a tumor of considerable size, apparently originating from the conjunctiva, covering the external rectus muscle. Vision was good, and no evidence of intra-ocular disease was discovered through the widely dilated pupil; there was no limitation of the visual field. A small piece was excised, from which the diagnosis of sarcoma was corroborated upon examination by Dr O. F. Wadsworth. A most unfavorable prognosis was given, and the extirpation of the globe, together with the morbid growth, was advised. The operation was done on May 10th, the external canthus being cut down to the bone to facilitate the removal of the muscle and all the conjunctiva. Two thirds of the rectus was excised, and the whole of the tumor. On section of the eyeball through the centre of the cornea, lens, and the length of the muscle, the sclerotic was seen to be thinned beneath the tumor, but not penetrated. [A drawing of the two halves in a fresh state, executed by Dr. H. P. Quincy, was shown.] Despite the unfavorable prognosis entertained, the patient was in perfect health. November 25, 1875, three years and a half after the operation, there had been no return of the disease in the interval, and no positive evidence could be obtained of anything present in the orbit. So large an amount of tissue had been taken from the orbit that the contraction was considerable. The patient reported that he had been entirely free from pain for a year and a half, and had then had a dull aching pain when using the remaining eye. Of these symptoms he was relieved by a convex glass of forty-eight inches focus, to correct his hypermetropia, and a convex glass of fourteen inches focus for reading purposes. The patient considered himself perfectly well, but upon careful questioning admitted that he could not lay his head on the right side without subsequent discomfort, and had experienced at times "a peculiar sort of dizzy feeling, as though objects were receding from him."

An optimist would hardly have dared to prognosticate such a result. The experience of ophthalmic surgeons would not have justified granting the patient more than a year's lease of life, and would have given him no hope of the immunity for three and a half years, which he has enjoyed.

Systolic Murmurs at the Apex of the Heart. — Dr. F. I. Knight made the following remarks on the subject: —

"Physicians at the present day generally hesitate to infer the existence of organic valvular disease from the presence of a systolic murmur at the base of the heart, since it is generally recognized that functional disturbance may cause such a murmur. Not so, however, when a systolic murmur is localized at the apex of the heart, as this is supposed by many to be always an indication of mitral regurgitation due to disease of the mitral valve, or at least a sign of some organic change about the mitral valve, even if it does not cause regurgitation.

"Neither of these conditions, however, necessarily exists; but an apex-systolic murmur may be functional, due either to temporary regurgitation at the mitral orifice, or simply to a change in the tension of the mitral valve.

"Now, how shall we determine whether there is organic disease of the valve such as to permit continued regurgitation? In the first place, we can set it down as certain that we can determine nothing by the intensity of the murmur; for in many of the most serious valvular affections the heart has not sufficient strength to produce a loud murmur. Its propagation to a considerable distance from the apex, especially as far as the lower angle of the left scapula, is of greater diagnostic importance. But we must rely chiefly upon the signs of enlargement of the heart, especially of the right ventricle with accentuation of the pulmonic second sound.

"If there are no signs of enlargement of the heart, and its sounds retain their proper quality and relative intensity, we have no right to say that mitral regurgitation exists.

"The length of time which has elapsed since an attack of endocarditis, which might cause organic valvular disease, would influence us somewhat in the decision. If the attack was remote, and no signs of enlargement of the heart were present, then we should infer that there was no regurgitation; but if the attack of endocarditis was recent, then we might feel that sufficient time had not elapsed for us to determine whether changes in the heart would take place or not.

"If, however, we find no proof of actual regurgitation, of the existence of cardiac enlargement, or of change in the heart-sounds, the apex-systolic murmur may still be due to some organic change (roughening and the like) about the ventricular surface of the valve, or rarely to some malformation or injury.

"But it is now well known that in many exhaustive diseases, such as spanæmia, chlorosis, acute rheumatism, the exanthemata, pneumonia, typhoid and typhus fever, apex-systolic murmurs occur which may be transitory, and in cases in which no disease of the mitral valve is found post mortem. This murmur is sometimes called anæmic, but more properly accidental or dynamic. It is at the present time usually attributed either to temporary regurgitation on account of irregular contraction of the papillary muscles, or to a change in tension of the mitral valve, converting a sound into a murmur.

"In some of these cases fatty degeneration of the papillary muscles has been found post mortem, which might cause either temporary regurgitation or alteration of tension in the valve. Bamberger says that he has several times heard the loudest murmurs where there was fatty degeneration of the papillary muscles, and no disease of the mitral valve. But the murmur not infrequently occurs temporarily in cases in which complete recovery takes place, and in which there was evidently no organic change anywhere.[1] Dr. Hayden[2] does not admit the theory of irregular contraction of the papillary muscles, but considers temporary regurgitation to be caused by a yielding of a particular portion of the walls of the ventricle, which changes the direction in which one or both of the papillary muscles act. He objects especially to this theory of irregular contraction of the papillary muscles as applied to cases of apex-systolic murmur in chorea, not only on Kirke's ground that 'there is no good proof that invol-

[1] The cause of this murmur is discussed by DaCosta in an article in the American Journal of the Medical Sciences, July, 1869, page 28.

[2] Diseases of the Heart and Aorta, 1875.

untary muscular organs participate in the choreic disorder, but also because it necessitates rhythmical action of the substance of the heart, and at the same time irregular action of the papillary muscles, which are directly continuous with the fibres of the ventricular walls; *i. e.*, rhythmical contraction of the greater portion of the length of certain muscular fibres, and spasmodic action of the remaining portion. It is not my object to discuss the theories as to the cause of this murmur, but to enforce the necessity of recognizing the possibility and not infrequent occurrence of a functional systolic murmur at the apex of the heart; but I will say that modern writers (Bamberger, Gerhardt, DaCosta, Dusch) generally mention disordered action of the papillary muscles and change of valve-tension as two most probable causes of it."

Dr. H. I. Bowditch asked what had been the cause of the murmur heard for a while in the patients who had been made to run up and down stairs by Dr. Knight several years ago.

Dr. Knight replied that, at the time, he supposed them to be produced by tricuspid regurgitation, but recent views had referred them to the mitral orifice.

Dr. Bowditch said that the general appearance of the patient, the history of rheumatism, and especially the existence of sounds in the veins were of importance in making a diagnosis; the *bruit-du-diable* was almost invariably connected with functional murmurs.

Dr. Knight replied that patients with organic disease of the heart might also be anæmic, and consequently have the venous murmur.

Dr. H. J. Barnes instanced a case which he had examined for an insurance company, where the souffle had persisted for eight years.

Dr. Bowditch had once had a patient in whom the murmur was heard only when he was in the recumbent posture.

Fibroma Molluscum. — A patient afflicted with this rare affection was exhibited by Dr. E. Wigglesworth, Jr.; the full description will be published.

Experience in the Treatment of One Hundred and Fifty Cases of Diphtheria. — The paper was read by Dr. E. Chenery.

Abnormal Mammary Development. — Dr. E. D. Spear, Jr., exhibited the photograph of a man with well-developed mammæ.

Cancer of the Rectum. — Dr. H. J. Barnes stated that at the post-mortem examination of the body of Mr. C. C. Holbrook, made by Dr. Gurnsey, of New York, all the organs were found to be in a healthy state except the rectum; at about six inches above the anus, there was a cancerous tumor as large as a small cocoa-nut, which almost closed the rectum. The cancer had given rise to an inflammation throughout the lower eighteen inches of the viscus.

Dr. H. W. Williams pointed out that this was the case of *perfect cure of cancerous disease*, on which was chiefly based the wide-spread reputation of a certain notorious quack, who has infested the city for the past few years.

A Battery for Electrolysis was exhibited by Dr. E. Cutter.

Dr. D. F. Lincoln said that he thought the battery needlessly heavy; that the purposes of electrolysis would be much better served by taking two of the eight plates of zinc, with a corresponding amount of carbon and cutting

them into eighteen pieces, which properly disposed in eighteen cells would be much lighter and more effective.

Dr. S. G. Webber said that the battery as used seemed to have accomplished what was desired, but it could not have acted by electrolysis to any great degree. Many cells and plates of small surface were requisite to obtain that form of electricity. A battery thus constructed has but little heat-producing power, whereas the battery shown was so arranged as to produce heat and have the least possible electrolytic action. In fact, this battery, though possibly safe in such cases as reported, could not be used with safety in other parts of the body, upon other species of growth.

[*Correction by the Secretary.* — Lest the statement made in the report of last month's meeting should be misinterpreted, — that the Obstetrical Society had adopted my view as to the justifiability of the operation reported, — I wish to say that of course the society expressed no opinion as a body. The question was submitted to the members present at the meeting of June 12th, was discussed by two or three gentlemen at the time and by quite a number after the meeting was dissolved, and my proposed course was approved by all of them. — J. R. C.]

THE BOSTON DISPENSARY.

The seventy-ninth annual report of the Boston Dispensary has appeared. It makes a gratifying showing of the good work this charity continues to do. The number of patients at the central office is not materially greater than during the previous year, but we are glad to see that two at least of the special departments are doing exceedingly well. There have been 2246 cases of skin disease against 1835 for 1874; the dental department also shows a considerable gain.

We regret to see that the financial condition of the dispensary is hardly satisfactory. During the past year the expenses have exceeded the receipts by something more than three thousand dollars. A legacy of two thousand dollars has been received, but the managers very properly are anxious to place it among the invested funds. This want of money is the more to be regretted because the building is inadequate in many respects to the constantly increasing demands. We hope something may be done to supply this excellent institution with means for its work.

It is proper to call attention to two excellent institutions, the Diet Kitchen and the Children's Seashore Home, which supplement the work of the dispensary. We quote from the superintendent's report: —

"The Diet Kitchen is located in Wall Street, and was established through the instrumentality of kind-hearted ladies. The contributions of a generous public have provided for the sick poor a great variety of properly prepared and nutritious food. This has always been ready to be dispensed upon the order of the dispensary physician.

"The relief thus rendered has often been of incalculable value. Properly prepared food is often the great desideratum in the practice of the physician.

The poor are frequently not able to purchase the food necessary for their sustenance when sick, or to have it prepared properly when purchased. The Diet Kitchen furnishes at once the means to administer to such people what is of more service than drugs. . . .

"The Children's Seashore Home, located at Beverly Farms, was established for the purpose of affording the benefits of sea-air, proper food, and good medical care to those poor children met with in dispensary practice whose lives are endangered by those diseases incident to the hot weather in a crowded city, and who are likely to be helped by a short residence at the seaside.

"Through the instrumentality of this worthy charity many a poor child living in the dark and filthy abodes of the city, suffering, and perhaps dying, for the want of free air and sunshine, was removed to the country and saved."

There have been several changes on the staff, which is now as follows:—

Superintendent: Alfred L. Haskins, M. D.

Surgeons: John Homans, M. D., J. Brackett Treadwell, M. D., Thomas Waterman, M. D., Thomas Dwight, Jr., M. D.

Physicians: Frederic I. Knight, M. D., Charles E. Inches, M. D., J. Franklin Appell, M. D., Robert Disbrow, M. D., Henry Tuck, M. D., William H. H. Hastings, M. D., William E. Boardman, M. D., Charles P. Putnam, M. D., Reginald H. Fitz, M. D., Josiah L. Hale, M. D., William H. Baker, M. D., Orlando W. Doe, M. D., Joseph P. Oliver, M. D., A. Lawrence Mason, M. D., Allen M. Sumner, M. D., George W. Gay, M. D.

Department for Diseases of the Nervous System: Samuel G. Webber, M. D., David F. Lincoln, M. D.

Department for Diseases of the Skin: Francis B. Greenough, M. D.

Dentists: Edward B. Hitchcock, Thomas Bradley.

District Physicians: No. 1. John B. Fulton, M. D. No. 2. Edward J. Moors, M. D. No. 3. Frederic W. Vogel, M. D. No. 4. James B. Ayer, M. D. No. 5. Elbridge G. Cutler, M. D. No. 6. Frederick C. Shattuck, M. D. No. 7. William C. Holyoke, M. D. No. 8. John G. Stanton, M. D.

MEDICAL NOTES.

— One of the results of the late meeting of the American Pharmaceutical Association in this city was the formation of a society for social and charitable purposes, called the Boston Druggists' Association. Mr. Theodore Metcalf is the first president.

— D. Luther, M. D., in an article in the *Philadelphia Medical Times* of November 27, 1875, suggests the employment of soluble glass in hospital construction. In the building and arrangement of institutions particularly those for the insane who exercise little control over the urinary or intestinal discharges, no system of ventilation or arrangement of the apartments occupied by such patients, whether of wood, painted or oiled, or with floors of slate, metal, or cement, has been sufficient to effect entire cleanliness. A material having an entire absence of absorbing surface would seem to meet the demand in such cases, and glass is such a material. The walls, floors, and

ceilings might be covered with it. It is not expensive, is strong when sufficiently thick, is impervious to water and dampness, and can be made of suitable color. Apartments thus fitted up could be thoroughly drenched with water so as to remove every particle of fœtid matter. The floors could be made comfortable by covering them with rubber cloth, which with the bedding could be easily removed and cleansed.

— At a recent meeting of the French Association for the Advancement of Science, as reported in *Le Progrès Médical* of September 4, 1875, M. Viaud-Grandmarais presented a communication upon the bites of vipers in the departments of Lower Loire and Vendée. It has recently been denied that the sting of the viper can cause death in man. M. Viaud has knowledge of three hundred and sixty-two authentic cases in which men have been bitten by vipers, and of these sixty-three have been fatal. All vipers are not equally dangerous. He estimates that one or two people in Vendée and one in Lower Loire die annually from their bite. Happily the number of persons bitten is year by year diminishing, as the wastes and thickets are reclaimed by cultivation. Death has occurred in both sexes, and at all ages, but especially among adult males. On the other hand, M. Viaud has seen an infant of ten months recover from the bite of the reptile. Ten times he has known death to occur within twenty-four hours; never in less than an hour after the accident. Death, too, occurs at the end of one week, or of three weeks, or it may be after several months, under the influence of a kind of cachexia. In those who have died, neither suction nor cauterization has been immediately practiced; while, on the contrary, ammonia has nearly always been employed. When death supervenes rapidly it may be due to syncope, to insufficient reaction, to general œdema, or to a sort of pneumonia. Death in the course of the first week is due to insufficient reaction or to a kind of typhoid state. M. Viaud has never known death to result from external hæmorrhage; on the contrary, by expelling the poison hæmorrhage has saved the patient. Hæmorrhage occurs from the secretory organs, from the kidneys and intestines in dogs, by the milk in cows. It is a somewhat remarkable fact that if the exposed mesentery of an animal is injected with a drop of the venom of the viper a slight hæmorrhage is seen to follow, but if having been wiped softly the mesentery is examined with the microscope, no rupture of a blood-vessel can be found. Besides hæmorrhages, abundant excretion of urine and vomitings are favorable. The intimate action of the poison is not known. The primary local lesions may occur very distant from the part bitten. In a case of bite near the external malleolus M. Viaud has seen these lesions to begin at the side of the larynx and pharynx. Harford has attempted to account for the phenomena of the poisoning by the development of peculiar corpuscles analogous to the white globules. Neither Weir Mitchell, a competent authority, nor M. Viaud himself has found such corpuscles. The paper closed with the important statement that not one of the patients in whom immediate suction of the wound had been practiced had died. In some there had not been the slightest sickness. Moreover, the sucking of the wound was perfectly innocuous to the one who performed it. The writer had not been able to notice what some have affirmed, a burning or other taste to the venom pressed from the wound.

— The following emanated from a "spiritual physician" after an examination of a lock of the patient's hair: —

MARBLEHEAD, *July* 12, 1875.

Examination of Mrs. ——.

There is a bilious torpid state of the liver, an over secretion of gall fluid. This mingles with the bile and leaks into the stomach upon which is fever coating. This retards digestion and agitates the nervious system. Too much internal slow fever habit obstructions at the kidneys sediment in the bladder.

Perscription.

½ oz Chamomile Flowers
½ " Pleurisy Root
½ " Hyssop
½ " Saffron
Steep in 1 qt water reduce ¼ strain add ½ oz spts nitre
Dose 2 tablespoonfuls sweeten take ½ hour before eating 3 times a day.
2 oz Fld Ext Buchu
½ " Ess Spearmint
Dose 1 teaspoonful in ¼ gill water, sweeten, take every eveing.

Yours &c —— ——

— According to *L'Union Médicale*, for the first time since the creation a census of India has been taken. It is found that India, with the English provinces and their dependencies, contains 256,830,958 souls, a population equal to that of all Europe. Each square mile contains on an average 211 inhabitants. The largest city is Calcutta, which, with its suburbs, has 895,000 inhabitants. Bombay has 644,000; Madras, 398,000; Lucknow, 285,000. Reckoning according to their religions there are in round numbers 140,500,000 Hindoos; 40,750,000 Mohammedans; 9,500,000 Buddhists, Jews, and Parsees. The religion of the remainder has not been ascertained. The Christians number 900,000, of whom 250,000 are Europeans and 650,000 natives. Twenty-three different languages are spoken in India. In the western provinces there are at least three hundred castes; in Bengal about one thousand. In the service of the government, including the native establishments, there are computed to be 1,236,000; 629,000 — of whom 849 are missionaries — are supported by religious establishments. There are 30,000 religious mendicants, 10,000 astrologers, 5 sorcerers, 465 exorcists, 518 poets, 1 orator, 33,000 jurists, 75,000 physicians, 218,000 artists, among whom are reckoned acrobats, serpent charmers, etc. Other statistics are given as to the number of agriculturists, drivers of elephants, camels, etc., and of thieves, highway robbers, vagabonds, etc.

— Mr. Oliver Pemberton (*British Medical Journal*, October 30, 1875) recently tied the common femoral an inch below Poupart's ligament, on a patient with femoral aneurism. He used an ordinary antiseptically prepared catgut ligature, tying the vessel by a single loop, and finishing by a double one. The ends were cut off short, and the wound closed. The contents of the aneurismal sac remained fluid for a long time; and it was not until nearly three months had elapsed that everything was absorbed and the limb restored.

Neither at the operation nor subsequently did he follow out the antiseptic method of treating the wound; that healed in the ordinary way by suppuration and gradual repair. His object was to permanently close the artery at a given point without cutting it through; and this was effectually and safely accomplished, even in the midst of suppuration.

He says, "The principle involved in tying arteries in their continuity by means of animal ligatures may be still on its trial; but I will be bold enough to assert 'that the fate or behavior of a given antiseptic catgut ligature, applied to the continuity of an artery,' will yet be foretold with confidence as to the favorable result. And in this I appear to be more sanguine than Mr. Maunder states himself to be in his recent Lettsomian Lectures on the Surgery of the Arteries."

— In a recent murder trial in London which has excited intense interest, the question as to whether the deceased had ever been pregnant came up, the only means of deciding being the condition of the partially decomposed uterus. Mr. Bond and Dr. Meadows came to opposite opinions, and the latter presented it before the Royal Obstetrical Society. According to *The Lancet* the organ measured at the fundus one inch and three quarters in width, the canal was two inches and a half in length, and the uterine walls of unusual thinness, one measuring rather less and the other rather more than a quarter of an inch in thickness. The os uteri had been injured and its character destroyed, by post-mortem examination, to such a degree as to render it impossible to discover its original condition. The inner surface of the organ presented a convex appearance, an appearance generally met with in the virgin, but not believed to exist in a uterus which has been gravid. From these characters Dr. Meadows thought it impossible to form a positive decision with regard to the existence of a previous pregnancy, though he was inclined to the opinion that the organ was nulliparous. Owing to the scientific as well as public interest of the point in question, the discussion of the paper was postponed until the next meeting of the society, to be held in January.

The trial is of interest in many other respects, as it involved the identification of a body, with the various questions of height, age, length of time of exposure, modus operandi of decomposition, etc. The question of murder or suicide also came before the anatomical experts, who appear to have gained great credit by their skill, which led to the conviction of the accused. We hope on another occasion to give further details of this very interesting case.

— The superintendents of the New England institutions for the insane have taken a new departure by the formation of a local organization, the New England Psychological Society, which it is believed will result in mutual improvement, increased usefulness of the institutions under their charge, and the advance of the interests of the insane.

The first movement in the matter was made by Dr. B. D. Eastman, Superintendent of the Worcester Lunatic Hospital, whose overtures met with such unanimous and hearty approval that the success of the enterprise was at once assured. The first meeting, that for organization, was held at Worcester, December 14th. Pliny Earle, M. D., Superintendent of the Northampton Lunatic Hospital, was chosen president, John E. Tyler, M. D., formerly Superintendent of

the McLean Asylum, vice-president, and B. D. Eastman, Superintendent of the Worcester Lunatic Hospital, secretary and treasurer. Meetings are to be held quarterly, the next at Worcester on the third Tuesday of March, 1876.

MEDICAL HANGERS-ON.

Messrs. Editors, — The object of this note is to call the attention of the profession to an imposition that is perpetrated on us at the office of the State Board of Charities at 30 Pemberton Square. Over a year ago I was called by a medical man to examine a patient for admission to the asylum for the insane. On the following day we proceeded to the office, then in City Hall. There we were met by a certain middle-aged physician, who had the papers all ready; he had, as he stated, examined the patient at the request of her friends. My services were, of course, dispensed with.

A short time ago I went on a similar case. Again we were met by this gentleman, who had examined the patient. We told him on this occasion that his services were unnecessary. Other medical men have been imposed on as above. It would seem as if some medical gentlemen hang about this office, and are zealous to have their names down in these cases for the sake of the fee, which is $3.60. Very respectfully, M. D.

WEEKLY BULLETIN OF PREVALENT DISEASES.

The following is a bulletin of the diseases prevalent in Massachusetts during the week ending December 18, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

The summary for each section is as follows: —

Berkshire; Bronchitis, pneumonia, rheumatism.

Valley: Pneumonia, influenza, bronchitis, diphtheria. Springfield, Hadley, and Holyoke report diphtheria as unusually prevalent.

Midland: Bronchitis, influenza, pneumonia, rheumatism, diphtheria. More sickness reported.

Northeastern: Bronchitis, scarlatina, influenza, pneumonia, rheumatism. More sickness, especially scarlatina and diphtheria, reported.

Metropolitan; Bronchitis, pneumonia, diphtheria, scarlatina. More diphtheria and scarlatina reported.

Southeastern: Bronchitis, influenza, rheumatism, pneumonia.

The order of relative prevalence for the State at large is bronchitis, pneumonia, rheumatism, influenza, scarlatina, diphtheria, typhoid fever, croup, measles, whooping-cough. F. W. Draper, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING DEC. 11, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-Rate per 1000 during Week
New York	1,060,000	539	26
Philadelphia	800,000	312	20
Brooklyn	500,000	248	25
Chicago	400,000	130	17
Boston	342,000	169	26
Cincinnati	260,000		
Providence	100,700	31	16
Worcester	50,000	18	19
Lowell	50,000	18	19
Cambridge	48,000	20	22
Fall River	45,000	19	22
Lawrence	35,000	6	9
Lynn	33,000	11	17
Springfield	31,000		
Salem	26,000	20	40

Normal Death-Rate, 17 per 1000.

Books and Pamphlets Received. — The Popular Health Almanac for 1876. Edited by Frederick Hoffmann. New York: E. Steiger.

The Cholera Epidemic of 1873 in the United States. Washington. 1875. (From the Hon. Henry L. Pierce.)